

SEQUENCE LISTING

<110> Bristol-Myers Squibb Company

<120> POLYNUCLEOTIDE ENCODING A NOVEL HUMAN P2X7 SPLICE VARIANT,
HBMYP2X7y

<130> D0272 NP

<150> U.S. 60/460340

<151> 2003-04-03

<160> 96

<170> PatentIn version 3.2

<210> 1

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<212> DNA

<213> Homo sapiens

<220>

<221> CDS

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Lys	Val	Thr	Arg	Ile	Gln	Ser	Met	Asn	Tyr	Gly	Thr	Ile	Lys	Trp	Phe	
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ttc	cac	gtg	atc	atc	ttt	tcc	tac	gtt	tgc	ttt	gct	ctg	gtg	agt	gac	144
Phe	His	Val	Ile	Ile	Phe	Ser	Tyr	Val	Cys	Phe	Ala	Leu	Val	Ser	Asp	
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aag	ctg	tac	cag	cgg	aaa	gag	cct	gtc	atc	agt	tct	gtg	cac	acc	aag	192
Lys	Leu	Tyr	Gln	Arg	Lys	Glu	Pro	Val	Ile	Ser	Ser	Val	His	Thr	Lys	
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gtg	aag	ggg	ata	gca	gag	gtg	aaa	gag	gag	atc	gtg	gag	aat	gga	gtg	240
Val	Lys	Gly	Ile	Ala	Glu	Val	Lys	Glu	Glu	Ile	Val	Glu	Asn	Gly	Val	
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aag	aag	ttg	gtg	cac	agt	gtc	ttt	gac	acc	gca	gac	tac	acc	ttc	cct	288
Lys	Lys	Leu	Val	His	Ser	Val	Phe	Asp	Thr	Ala	Asp	Tyr	Thr	Phe	Pro	
				85					90					95		

ttg	cag	ggg	aac	tct	ttc	ttc	gtg	atg	aca	aac	ttt	ctc	aaa	aca	gaa	336
Leu	Gln	Gly	Asn	Ser	Phe	Phe	Val	Met	Thr	Asn	Phe	Leu	Lys	Thr	Glu	
			100					105					110			

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Cys Ser Ser Asp Arg Gly	Cys Lys Lys Gly Trp	Met Asp Pro Gln Ser	
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Lys Gly Ile Gln Thr Gly Arg Cys Val Val Tyr Glu Gly Asn Gln Lys			
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acc tgt gaa gtc tct gcc tgg tgc ccc atc gag gca gtg gaa gag gcc			528
Thr Cys Glu Val Ser Ala Trp Cys Pro Ile Glu Ala Val Glu Glu Ala			
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ccc cgg cct gct ctc ttg aac agt gcc gaa aac ttc act gtg ctc atc			576
Pro Arg Pro Ala Leu Leu Asn Ser Ala Glu Asn Phe Thr Val Leu Ile			
180	185	190	
aag aac aat atc gac ttc ccc ggc cac aac tac acc aca tac gcc aag			624
Lys Asn Asn Ile Asp Phe Pro Gly His Asn Tyr Thr Thr Tyr Ala Lys			
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tac tac aag gaa aac aat gtt gag aaa cgg act ctg ata aaa gtc ttc			672
Tyr Tyr Lys Glu Asn Asn Val Glu Lys Arg Thr Leu Ile Lys Val Phe			
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ggg atc cgt ttt gac atc ctg gtt ttt ggc acc gga gga aaa ttt gac			720
Gly Ile Arg Phe Asp Ile Leu Val Phe Gly Thr Gly Gly Lys Phe Asp			
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att atc cag ctg gtt gtg tac atc ggc tca acc ctc tcc tac ttc ggt			768
Ile Ile Gln Leu Val Val Tyr Ile Gly Ser Thr Leu Ser Tyr Phe Gly			
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ctg gcc act gtg ttc atc gac ttc ctc atc gac act tac tcc agt aac			816
Leu Ala Thr Val Phe Ile Asp Phe Leu Ile Asp Thr Tyr Ser Ser Asn			
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Cys Cys Arg Ser His Ile Tyr Pro Trp Cys Lys Cys Cys Gln Pro Cys			
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Val Val Asn Glu Tyr Tyr Tyr Arg Lys Lys Cys Glu Ser Ile Val Glu			
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Pro Lys Pro Thr Leu Lys Tyr Val Ser Phe Val Asp Glu Ser His Ile			
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agg atg gtg aac cag cag cta cta ggg aga agt ctg caa gat gtc aag			1008
Arg Met Val Asn Gln Gln Leu Leu Gly Arg Ser Leu Gln Asp Val Lys			
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ggc caa gaa gtc cca aga cct gcg atg gac ttc aca gat ttg tcc agg			1056
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Leu Pro Leu Ala Leu His Asp Thr Pro Pro Ile Pro Gly Gln Pro Glu	
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Glu Ile Arg Leu Leu Arg Lys Glu Ala Thr Pro Arg Ser Arg Asp Ser	
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Pro Val Trp Cys Gln Cys Gly Ser Cys Leu Pro Ser Gln Leu Pro Glu	
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Ser His Arg Cys Leu Glu Glu Leu Cys Cys Arg Lys Lys Pro Gly Ala	
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tgc atc acc acc tca gag ctg ttc agg aag ctg gtc ctg tcc aga cac	1296
Cys Ile Thr Thr Ser Glu Leu Phe Arg Lys Leu Val Leu Ser Arg His	
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gtc ctg cag ttc ctc ctg ctc tac cag gag ccc ttg ctg gcg ctg gat	1344
Val Leu Gln Phe Leu Leu Leu Tyr Gln Glu Pro Leu Leu Ala Leu Asp	
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gtg gat tcc acc aac agc cgg ctg cgg cac tgt gcc tac agg tgc tac	1392
Val Asp Ser Thr Asn Ser Arg Leu Arg His Cys Ala Tyr Arg Cys Tyr	
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gcc acc cgg cgc ttc ggc tcc cag gac atg gct gac ttt gcc atc ctg	1440
Ala Thr Arg Arg Phe Gly Ser Gln Asp Met Ala Asp Phe Ala Ile Leu	
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Pro Ser Cys Cys Arg Trp Arg Ile Arg Lys Glu Phe Pro Lys Ser Glu	
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Val Lys Gly Ile Ala Glu Val Lys Glu Glu Ile Val Glu Asn Gly Val
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85 90 95
Leu Gln Gly Asn Ser Phe Phe Val Met Thr Asn Phe Leu Lys Thr Glu
100 105 110
Gly Gln Glu Gln Arg Leu Cys Pro Glu Tyr Pro Thr Arg Arg Thr Leu
115 120 125
Cys Ser Ser Asp Arg Gly Cys Lys Lys Gly Trp Met Asp Pro Gln Ser
130 135 140
Lys Gly Ile Gln Thr Gly Arg Cys Val Val Tyr Glu Gly Asn Gln Lys
145 150 155 160
Thr Cys Glu Val Ser Ala Trp Cys Pro Ile Glu Ala Val Glu Glu Ala
165 170 175
Pro Arg Pro Ala Leu Leu Asn Ser Ala Glu Asn Phe Thr Val Leu Ile
180 185 190
Lys Asn Asn Ile Asp Phe Pro Gly His Asn Tyr Thr Thr Tyr Ala Lys
195 200 205
Tyr Tyr Lys Glu Asn Asn Val Glu Lys Arg Thr Leu Ile Lys Val Phe
210 215 220
Gly Ile Arg Phe Asp Ile Leu Val Phe Gly Thr Gly Gly Lys Phe Asp
225 230 235 240
Ile Ile Gln Leu Val Val Tyr Ile Gly Ser Thr Leu Ser Tyr Phe Gly
245 250 255
Leu Ala Thr Val Phe Ile Asp Phe Leu Ile Asp Thr Tyr Ser Ser Asn

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Cys	Cys	Arg	Ser	His	Ile	Tyr	Pro	Trp	Cys	Lys	Cys	Cys	Gln	Pro	Cys
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Pro	Lys	Pro	Thr	Leu	Lys	Tyr	Val	Ser	Phe	Val	Asp	Glu	Ser	His	Ile
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Arg	Met	Val	Asn	Gln	Gln	Leu	Leu	Gly	Arg	Ser	Leu	Gln	Asp	Val	Lys
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Gly	Gln	Glu	Val	Pro	Arg	Pro	Ala	Met	Asp	Phe	Thr	Asp	Leu	Ser	Arg
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Leu	Pro	Leu	Ala	Leu	His	Asp	Thr	Pro	Pro	Ile	Pro	Gly	Gln	Pro	Glu
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Glu	Ile	Arg	Leu	Leu	Arg	Lys	Glu	Ala	Thr	Pro	Arg	Ser	Arg	Asp	Ser
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Pro	Val	Trp	Cys	Gln	Cys	Gly	Ser	Cys	Leu	Pro	Ser	Gln	Leu	Pro	Glu
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Ser	His	Arg	Cys	Leu	Glu	Glu	Leu	Cys	Cys	Arg	Lys	Lys	Pro	Gly	Ala
			405						410					415	
Cys	Ile	Thr	Thr	Ser	Glu	Leu	Phe	Arg	Lys	Leu	Val	Leu	Ser	Arg	His
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Val	Leu	Gln	Phe	Leu	Leu	Leu	Tyr	Gln	Glu	Pro	Leu	Leu	Ala	Leu	Asp
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Val	Asp	Ser	Thr	Asn	Ser	Arg	Leu	Arg	His	Cys	Ala	Tyr	Arg	Cys	Tyr
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Ala	Thr	Arg	Arg	Phe	Gly	Ser	Gln	Asp	Met	Ala	Asp	Phe	Ala	Ile	Leu
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Pro	Ser	Cys	Cys	Arg	Trp	Arg	Ile	Arg	Lys	Glu	Phe	Pro	Lys	Ser	Glu
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 35 40 45

Lys Leu Tyr Gln Arg Lys Glu Pro Val Ile Ser Ser Val His Thr Lys
 50 55 60

Val Lys Gly Ile Ala Glu Val Lys Glu Glu Ile Val Glu Asn Gly Val
 65 70 75 80

Lys Lys Leu Val His Ser Val Phe Asp Thr Ala Asp Tyr Thr Phe Pro
 85 90 95

Leu Gln Gly Asn Ser Phe Phe Val Met Thr Asn Phe Leu Lys Thr Glu
 100 105 110

Gly Gln Glu Gln Arg Leu Cys Pro Glu Tyr Pro Thr Arg Arg Thr Leu
 115 120 125

Cys Ser Ser Asp Arg Gly Cys Lys Lys Gly Trp Met Asp Pro Gln Ser
 130 135 140

Lys Gly Ile Gln Thr Gly Arg Cys Val Val His Glu Gly Asn Gln Lys
 145 150 155 160

Thr Cys Glu Val Ser Ala Trp Cys Pro Ile Glu Ala Val Glu Glu Ala
 165 170 175

Pro Arg Pro Ala Leu Leu Asn Ser Ala Glu Asn Phe Thr Val Leu Ile
180 185 190

Lys Asn Asn Ile Asp Phe Pro Gly His Asn Tyr Thr Thr Arg Asn Ile
195 200 205

Leu Pro Gly Leu Asn Ile Thr Cys Thr Phe His Lys Thr Gln Asn Pro
210 215 220

Gln Cys Pro Ile Phe Arg Leu Gly Asp Ile Phe Arg Glu Thr Gly Asp
225 230 235 240

Asn Phe Ser Asp Val Ala Ile Gln Gly Gly Ile Met Gly Ile Glu Ile
245 250 255

Tyr Trp Asp Cys Asn Leu Asp Arg Trp Phe His His Cys Arg Pro Lys
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Tyr Ser Phe Arg Arg Leu Asp Asp Lys Thr Thr Asn Val Ser Leu Tyr
275 280 285

Pro Gly Tyr Asn Phe Arg Tyr Ala Lys Tyr Tyr Lys Glu Asn Asn Val
290 295 300

Glu Lys Arg Thr Leu Ile Lys Val Phe Gly Ile Arg Phe Asp Ile Leu
305 310 315 320

Val Phe Gly Thr Gly Gly Lys Phe Asp Ile Ile Gln Leu Val Val Tyr
325 330 335

Ile Gly Ser Thr Leu Ser Tyr Phe Gly Leu Ala Ala Val Phe Ile Asp
340 345 350

Phe Leu Ile Asp Thr Tyr Ser Ser Asn Cys Cys Arg Ser His Ile Tyr
355 360 365

Pro Trp Cys Lys Cys Cys Gln Pro Cys Val Val Asn Glu Tyr Tyr Tyr
370 375 380

Arg Lys Lys Cys Glu Ser Ile Val Glu Pro Lys Pro Thr Leu Lys Tyr
385 390 395 400

Val Ser Phe Val Asp Glu Ser His Ile Arg Met Val Asn Gln Gln Leu

Met Pro Ala Cys Cys Ser Trp Asn Asp Val Phe Gln Tyr Glu Thr Asn
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 Lys Val Thr Arg Ile Gln Ser Thr Asn Tyr Gly Thr Val Lys Trp Val
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 Leu His Met Ile Val Phe Ser Tyr Ile Ser Phe Ala Leu Val Ser Asp
 35 40 45
 Lys Leu Tyr Gln Arg Lys Glu Pro Val Ile Ser Ser Val His Thr Lys
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 Val Lys Gly Ile Ala Glu Val Thr Glu Asn Val Thr Glu Gly Gly Val
 65 70 75 80
 Thr Lys Leu Gly His Ser Ile Phe Asp Thr Ala Asp Tyr Thr Phe Pro
 85 90 95
 Leu Gln Gly Asn Ser Phe Phe Val Met Thr Asn Tyr Val Lys Ser Glu
 100 105 110
 Gly Gln Val Gln Thr Leu Cys Pro Glu Tyr Pro Arg Arg Gly Ala Gln
 115 120 125
 Cys Ser Ser Asp Arg Arg Cys Lys Lys Gly Trp Met Asp Pro Gln Ser
 130 135 140
 Lys Gly Ile Gln Thr Gly Arg Cys Val Pro Tyr Asp Lys Thr Arg Lys
 145 150 155 160
 Thr Cys Glu Val Ser Ala Trp Cys Pro Thr Glu Glu Glu Lys Glu Ala
 165 170 175
 Pro Arg Pro Ala Leu Leu Arg Ser Ala Glu Asn Phe Thr Val Leu Ile
 180 185 190
 Lys Asn Asn Ile His Phe Pro Gly His Asn Tyr Thr Thr Arg Asn Ile
 195 200 205
 Leu Pro Thr Met Asn Gly Ser Cys Thr Phe His Lys Ala Trp Asp Pro
 210 215 220

Gln Cys Ser Ile Phe Arg Leu Gly Asp Ile Phe Gln Glu Ala Gly Glu
 225 230 235 240

Asn Phe Thr Glu Val Ala Val Gln Gly Gly Ile Met Gly Ile Glu Ile
 245 250 255

Tyr Trp Asp Cys Asn Leu Asp Ser Trp Ser His His Cys Arg Pro Arg
 260 265 270

Tyr Ser Phe Arg Arg Leu Asp Asp Lys Asn Met Asp Glu Ser Phe Val
 275 280 285

Pro Gly Tyr Asn Phe Arg Tyr Ala Lys Tyr Tyr Lys Glu Asn Asn Val
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Glu Lys Arg Thr Leu Ile Lys Ala Phe Gly Ile Arg Phe Asp Ile Leu
 305 310 315 320

Val Phe Gly Thr Gly Gly Lys Phe Asp Ile Ile Gln Leu Val Val Tyr
 325 330 335

Ile Gly Ser Thr Leu Ser Tyr Phe Gly Leu Ala Thr Val Cys Ile Asp
 340 345 350

Leu Leu Ile Asn Thr Tyr Ser Ser Ala Phe Cys Arg Ser Gly Val Tyr
 355 360 365

Pro Tyr Cys Lys Cys Cys Glu Pro Cys Thr Val Asn Glu Tyr Tyr Tyr
 370 375 380

Arg Lys Lys Cys Glu Ser Ile Met Glu Pro Lys Pro Thr Leu Lys Tyr
 385 390 395 400

Val Ser Phe Val Asp Glu Pro His Ile Arg Met Val Asp Gln Gln Leu
 405 410 415

Leu Gly Lys Ser Leu Gln Val Val Lys Gly Gln Glu Val Pro Arg Pro
 420 425 430

Gln Met Asp Phe Ser Asp Leu Ser Arg Leu Ser Leu Ser Leu His Asp
 435 440 445

Ser Pro Leu Thr Pro Gly Gln Ser Glu Glu Ile Gln Leu Leu His Glu

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Glu Val Ala Pro Lys Ser Gly Asp Ser Pro Ser Trp Cys Gln Cys Gly				
465		470		475
Asn Cys Leu Pro Ser Arg Leu Pro Glu Gln Arg Arg Ala Leu Glu Glu				
	485		490	495
Leu Cys Cys Arg Arg Lys Pro Gly Arg Cys Ile Thr Thr Ser Lys Leu				
	500		505	510
Phe His Lys Leu Val Leu Ser Arg Asp Thr Leu Gln Leu Leu Leu Leu				
	515		520	525
Tyr Gln Asp Pro Leu Leu Val Leu Gly Glu Glu Ala Thr Asn Ser Arg				
	530		535	540
Leu Arg His Arg Ala Tyr Arg Cys Tyr Ala Thr Trp Arg Phe Gly Ser				
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Gln Asp Met Ala Asp Phe Ala Ile Leu Pro Ser Cys Cys Arg Trp Arg				
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Ile Arg Lys Glu Phe Pro Lys Thr Glu Gly Gln Tyr Ser Gly Phe Lys				
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	20		25	30
Leu His Met Thr Val Phe Ser Tyr Val Ser Phe Ala Leu Met Ser Asp				
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Lys Leu Tyr Gln Arg Lys Glu Pro Leu Ile Ser Ser Val His Thr Lys
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Val Lys Gly Val Ala Glu Val Thr Glu Asn Val Thr Glu Gly Gly Val
 65 70 75 80

Thr Lys Leu Val His Gly Ile Phe Asp Thr Ala Asp Tyr Thr Leu Pro
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Leu Gln Gly Asn Ser Phe Phe Val Met Thr Asn Tyr Leu Lys Ser Glu
 100 105 110

Gly Gln Glu Gln Lys Leu Cys Pro Glu Tyr Pro Ser Arg Gly Lys Gln
 115 120 125

Cys His Ser Asp Gln Gly Cys Ile Lys Gly Trp Met Asp Pro Gln Ser
 130 135 140

Lys Gly Ile Gln Thr Gly Arg Cys Ile Pro Tyr Asp Gln Lys Arg Lys
 145 150 155 160

Thr Cys Glu Ile Phe Ala Trp Cys Pro Ala Glu Glu Gly Lys Glu Ala
 165 170 175

Pro Arg Pro Ala Leu Leu Arg Ser Ala Glu Asn Phe Thr Val Leu Ile
 180 185 190

Lys Asn Asn Ile Asp Phe Pro Gly His Asn Tyr Thr Thr Arg Asn Ile
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Leu Pro Gly Met Asn Ile Ser Cys Thr Phe His Lys Thr Trp Asn Pro
 210 215 220

Gln Cys Pro Ile Phe Arg Leu Gly Asp Ile Phe Gln Glu Ile Gly Glu
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Asn Phe Thr Glu Val Ala Val Gln Gly Gly Ile Met Gly Ile Glu Ile
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Tyr Trp Asp Cys Asn Leu Asp Ser Trp Ser His Arg Cys Gln Pro Lys
 260 265 270

Tyr Ser Phe Arg Arg Leu Asp Asp Lys Tyr Thr Asn Glu Ser Leu Phe
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Pro Gly Tyr Asn Phe Arg Tyr Ala Lys Tyr Tyr Lys Glu Asn Gly Met
290 295 300

Glu Lys Arg Thr Leu Ile Lys Ala Phe Gly Val Arg Phe Asp Ile Leu
305 310 315 320

Val Phe Gly Thr Gly Gly Lys Phe Asp Ile Ile Gln Leu Val Val Tyr
325 330 335

Ile Gly Ser Thr Leu Ser Tyr Phe Gly Leu Ala Thr Val Cys Ile Asp
340 345 350

Leu Ile Ile Asn Thr Tyr Ala Ser Thr Cys Cys Arg Ser Arg Val Tyr
355 360 365

Pro Ser Cys Lys Cys Cys Glu Pro Cys Ala Val Asn Glu Tyr Tyr Tyr
370 375 380

Arg Lys Lys Cys Glu Pro Ile Val Glu Pro Lys Pro Thr Leu Lys Tyr
385 390 395 400

Val Ser Phe Val Asp Glu Pro His Ile Trp Met Val Asp Gln Gln Leu
405 410 415

Leu Gly Lys Ser Leu Gln Asp Val Lys Gly Gln Glu Val Pro Arg Pro
420 425 430

Gln Thr Asp Phe Leu Glu Leu Ser Arg Leu Ser Leu Ser Leu His His
435 440 445

Ser Pro Pro Ile Pro Gly Gln Pro Glu Glu Met Gln Leu Leu Gln Ile
450 455 460

Glu Ala Val Pro Arg Ser Arg Asp Ser Pro Asp Trp Cys Gln Cys Gly
465 470 475 480

Asn Cys Leu Pro Ser Gln Leu Pro Glu Asn Arg Arg Ala Leu Glu Glu
485 490 495

Leu Cys Cys Arg Arg Lys Pro Gly Gln Cys Ile Thr Thr Ser Glu Leu

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Phe Ser Lys Ile Val Leu Ser Arg Glu Ala Leu Gln Leu Leu Leu		
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Leu Arg His Cys Ala Tyr Arg Ser Tyr Ala Thr Trp Arg Phe Val Ser		
545	550	555
Gln Asp Met Ala Asp Phe Ala Ile Leu Pro Ser Cys Cys Arg Trp Lys		
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Tyr Pro Tyr		
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Gln Leu Leu Ile Leu Leu Tyr Phe Val Trp Tyr Val Phe Ile Val Gln		
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Lys Ser Tyr Gln Glu Ser Glu Thr Gly Pro Glu Ser Ser Ile Ile Thr		
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Lys Val Lys Gly Ile Thr Thr Ser Glu His Lys Val Trp Asp Val Glu		
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Pro	Tyr	Tyr	Gln	Gly	Pro	Ser	Lys	Thr	Cys	Glu	Val	Phe	Gly	Trp	Cys	
				165					170					175		
Pro	Val	Glu	Asp	Gly	Ala	Ser	Val	Ser	Gln	Phe	Leu	Gly	Thr	Met	Ala	
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Pro	Asn	Phe	Thr	Ile	Leu	Ile	Lys	Asn	Ser	Ile	His	Tyr	Pro	Lys	Phe	
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Leu	Gly	Phe	Ile	Val	Glu	Lys	Ala	Gly	Glu	Ser	Phe	Thr	Glu	Leu	Ala	
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His	Lys	Gly	Gly	Val	Ile	Gly	Val	Ile	Ile	Asn	Trp	Asp	Cys	Asp	Leu	
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Asp	Leu	Pro	Ala	Ser	Glu	Cys	Asn	Pro	Lys	Tyr	Ser	Phe	Arg	Arg	Leu	
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Asp	Pro	Lys	His	Val	Pro	Ala	Ser	Ser	Gly	Tyr	Asn	Phe	Arg	Phe	Ala	
	290					295					300					
Lys	Tyr	Tyr	Lys	Ile	Asn	Gly	Thr	Thr	Thr	Arg	Thr	Leu	Ile	Lys	Ala	
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Tyr Gly Ile Arg Ile Asp Val Ile Val His Gly Gln Ala Gly Lys Phe
325 330 335

Ser Leu Ile Pro Thr Ile Ile Asn Leu Ala Thr Ala Leu Thr Ser Val
340 345 350

Gly Val Gly Ser Phe Leu Cys Asp Trp Ile Leu Leu Thr Phe Met Asn
355 360 365

Lys Asn Lys Val Tyr Ser His Lys Lys Phe Asp Lys Val Cys Thr Pro
370 375 380

Ser His Pro Ser Gly Ser Trp Pro Val Thr Leu Ala Arg Val Leu Gly
385 390 395 400

Gln Ala Pro Pro Glu Pro Gly His Arg Ser Glu Asp Gln His Pro Ser
405 410 415

Pro Pro Ser Gly Gln Glu Gly Gln Gln Gly Ala Glu Cys Gly Pro Ala
420 425 430

Phe Pro Pro Leu Arg Pro Cys Pro Ile Ser Ala Pro Ser Glu Gln Met
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Val Asp Thr Pro Ala Ser Glu Pro Ala Gln Ala Ser Thr Pro Thr Asp
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Pro Lys Gly Leu Ala Gln Leu
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35 40 45

Tyr Gln Val Arg Asp Thr Ala Ile Glu Ser Ser Val Val Thr Lys Val
 50 55 60

Lys Gly Ser Gly Leu Tyr Ala Asn Arg Val Met Asp Val Ser Asp Tyr
 65 70 75 80

Val Thr Pro Pro Gln Gly Thr Ser Val Phe Val Ile Ile Thr Lys Met
 85 90 95

Ile Val Thr Glu Asn Gln Met Gln Gly Phe Cys Pro Glu Ser Glu Glu
 100 105 110

Lys Tyr Arg Cys Val Ser Asp Ser Gln Cys Gly Pro Glu Pro Leu Pro
 115 120 125

Gly Gly Gly Ile Leu Thr Gly Arg Cys Val Asn Tyr Ser Ser Val Leu
 130 135 140

Arg Thr Cys Glu Ile Gln Gly Trp Cys Pro Thr Glu Val Asp Thr Val
 145 150 155 160

Glu Thr Pro Ile Met Met Glu Ala Glu Asn Phe Thr Ile Phe Ile Lys
 165 170 175

Asn Ser Ile Arg Phe Pro Leu Phe Asn Phe Glu Lys Gly Asn Leu Leu
 180 185 190

Pro Asn Leu Thr Ala Arg Asp Met Lys Thr Cys Arg Phe His Pro Asp
 195 200 205

Lys Asp Pro Phe Cys Pro Ile Leu Arg Val Gly Asp Val Val Lys Phe
 210 215 220

Ala Gly Gln Asp Phe Ala Lys Leu Ala Arg Thr Gly Gly Val Leu Gly
 225 230 235 240

Ile Lys Ile Gly Trp Val Cys Asp Leu Asp Lys Ala Trp Asp Gln Cys
 245 250 255

Ile Pro Lys Tyr Ser Phe Thr Arg Leu Asp Ser Val Ser Glu Lys Ser
 260 265 270

Ser Val Ser Pro Gly Tyr Asn Phe Arg Phe Ala Lys Tyr Tyr Lys Met
 275 280 285

Glu Asn Gly Ser Glu Tyr Arg Thr Leu Leu Lys Ala Phe Gly Ile Arg
 290 295 300

Phe Asp Val Leu Val Tyr Gly Asn Ala Gly Lys Phe Asn Ile Ile Pro
 305 310 315 320

Thr Ile Ile Ser Ser Val Ala Ala Phe Thr Ser Val Gly Val Gly Thr
 325 330 335

Val Leu Cys Asp Ile Ile Leu Leu Asn Phe Leu Lys Gly Ala Asp Gln
 340 345 350

Tyr Lys Ala Lys Lys Phe Glu Glu Val Asn Glu Thr Thr Leu Lys Ile
 355 360 365

Ala Ala Leu Thr Asn Pro Val Tyr Pro Ser Asp Gln Thr Thr Ala Glu
 370 375 380

Lys Gln Ser Thr Asp Ser Gly Ala Phe Ser Ile Gly His
 385 390 395

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Met Ala Arg Arg Phe Gln Glu Glu Leu Ala Ala Phe Leu Phe Glu Tyr
 1 5 10 15

Asp Thr Pro Arg Met Val Leu Val Arg Asn Lys Lys Val Gly Val Ile
 20 25 30

Phe Arg Leu Ile Gln Leu Val Val Leu Val Tyr Val Ile Gly Trp Val
 35 40 45

Phe Leu Tyr Glu Lys Gly Tyr Gln Thr Ser Ser Gly Leu Ile Ser Ser
 50 55 60

Val Ser Val Lys Leu Lys Gly Leu Ala Val Thr Gln Leu Pro Gly Leu

65					70						75					80
Gly	Pro	Gln	Val	Trp	Asp	Val	Ala	Asp	Tyr	Val	Phe	Pro	Ala	Gln	Gly	
				85					90					95		
Asp	Asn	Ser	Phe	Val	Val	Met	Thr	Asn	Phe	Ile	Val	Thr	Pro	Lys	Gln	
			100					105					110			
Thr	Gln	Gly	Tyr	Cys	Ala	Glu	His	Pro	Glu	Gly	Gly	Ile	Cys	Lys	Glu	
		115					120					125				
Asp	Ser	Gly	Cys	Thr	Pro	Gly	Lys	Ala	Lys	Arg	Lys	Ala	Gln	Gly	Ile	
	130					135					140					
Arg	Thr	Gly	Lys	Cys	Val	Ala	Phe	Asn	Asp	Thr	Val	Lys	Thr	Cys	Glu	
145					150					155					160	
Ile	Phe	Gly	Trp	Cys	Pro	Val	Glu	Val	Asp	Asp	Asp	Ile	Pro	Arg	Pro	
			165						170					175		
Ala	Leu	Leu	Arg	Glu	Ala	Glu	Asn	Phe	Thr	Leu	Phe	Ile	Lys	Asn	Ser	
			180					185					190			
Ile	Ser	Phe	Pro	Arg	Phe	Lys	Val	Asn	Arg	Arg	Asn	Leu	Val	Glu	Glu	
		195					200					205				
Val	Asn	Ala	Ala	His	Met	Lys	Thr	Cys	Leu	Phe	His	Lys	Thr	Leu	His	
	210					215					220					
Pro	Leu	Cys	Pro	Val	Phe	Gln	Leu	Gly	Tyr	Val	Val	Gln	Glu	Ser	Gly	
225					230					235					240	
Gln	Asn	Phe	Ser	Thr	Leu	Ala	Glu	Lys	Gly	Gly	Val	Val	Gly	Ile	Thr	
				245					250					255		
Ile	Asp	Trp	His	Cys	Asp	Leu	Asp	Trp	His	Val	Arg	His	Cys	Arg	Pro	
			260					265					270			
Ile	Tyr	Glu	Phe	His	Gly	Leu	Tyr	Glu	Glu	Lys	Asn	Leu	Ser	Pro	Gly	
		275					280					285				
Phe	Asn	Phe	Arg	Phe	Ala	Arg	His	Phe	Val	Glu	Asn	Gly	Thr	Asn	Tyr	
	290					295					300					

Arg His Leu Phe Lys Val Phe Gly Ile Arg Phe Asp Ile Leu Val Asp
 305 310 315 320

Gly Lys Ala Gly Lys Phe Asp Ile Ile Pro Thr Met Thr Thr Ile Gly
 325 330 335

Ser Gly Ile Gly Ile Phe Gly Val Ala Thr Val Leu Cys Asp Leu Leu
 340 345 350

Leu Leu His Ile Leu Pro Lys Arg His Tyr Tyr Lys Gln Lys Lys Phe
 355 360 365

Lys Tyr Ala Glu Asp Met Gly Pro Gly Ala Ala Glu Arg Asp Leu Ala
 370 375 380

Ala Thr Ser Ser Thr Leu Gly Leu Gln Glu Asn Met Arg Thr Ser
 385 390 395

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 <211> 388
 <212> PRT
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<400> 9

Met Ala Gly Cys Cys Ser Ala Leu Ala Ala Phe Leu Phe Glu Tyr Asp
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Thr Pro Arg Ile Val Leu Ile Arg Ser Arg Lys Val Gly Leu Met Asn
 20 25 30

Arg Ala Val Gln Leu Leu Ile Leu Ala Tyr Val Ile Gly Trp Val Phe
 35 40 45

Val Trp Glu Lys Gly Tyr Gln Glu Thr Asp Ser Val Val Ser Ser Val
 50 55 60

Thr Thr Lys Val Lys Gly Val Ala Val Thr Asn Thr Ser Lys Leu Gly
 65 70 75 80

Phe Arg Ile Trp Asp Val Ala Asp Tyr Val Ile Pro Ala Gln Glu Glu
 85 90 95

Asn Ser Leu Phe Val Met Thr Asn Val Ile Leu Thr Met Asn Gln Thr
 100 105 110

Gln Gly Leu Cys Pro Glu Ile Pro Asp Ala Thr Thr Val Cys Lys Ser
 115 120 125

Asp Ala Ser Cys Thr Ala Gly Ser Ala Gly Thr His Ser Asn Gly Val
 130 135 140

Ser Thr Gly Arg Cys Val Ala Phe Asn Gly Ser Val Lys Thr Cys Glu
 145 150 155 160

Val Ala Ala Trp Cys Pro Val Glu Asp Asp Thr His Val Pro Gln Pro
 165 170 175

Ala Phe Leu Lys Ala Ala Glu Asn Phe Thr Leu Leu Val Lys Asn Asn
 180 185 190

Ile Trp Tyr Pro Lys Phe Asn Phe Ser Lys Arg Asn Ile Leu Pro Asn
 195 200 205

Ile Thr Thr Thr Tyr Leu Lys Ser Cys Ile Tyr Asp Ala Lys Thr Asp
 210 215 220

Pro Phe Cys Pro Ile Phe Arg Leu Gly Lys Ile Val Glu Asn Ala Gly
 225 230 235 240

His Ser Phe Gln Asp Met Ala Val Glu Gly Gly Ile Met Gly Ile Gln
 245 250 255

Val Asn Trp Asp Cys Asn Leu Asp Arg Ala Ala Ser Leu Cys Leu Pro
 260 265 270

Arg Tyr Ser Phe Arg Arg Leu Asp Thr Arg Asp Val Glu His Asn Val
 275 280 285

Ser Pro Gly Tyr Asn Phe Arg Phe Ala Lys Tyr Tyr Arg Asp Leu Ala
 290 295 300

Gly Asn Glu Gln Arg Thr Leu Ile Lys Ala Tyr Gly Ile Arg Phe Asp
 305 310 315 320

Ile Ile Val Phe Gly Lys Ala Gly Lys Phe Asp Ile Ile Pro Thr Met

325 330 335
 Ile Asn Ile Gly Ser Gly Leu Ala Leu Leu Gly Met Ala Thr Val Leu
 340 345 350
 Cys Asp Ile Ile Val Leu Tyr Cys Met Lys Lys Arg Leu Tyr Tyr Arg
 355 360 365
 Glu Lys Lys Tyr Lys Tyr Val Glu Asp Tyr Glu Gln Gly Leu Ala Ser
 370 375 380
 Glu Leu Asp Gln
 385
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 <213> Homo sapiens
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 Lys Thr Glu Lys Tyr Val Ile Ala Lys Asn Lys Lys Val Gly Leu Leu
 20 25 30
 Tyr Arg Leu Leu Gln Ala Ser Ile Leu Ala Tyr Leu Val Val Trp Val
 35 40 45
 Phe Leu Ile Lys Lys Gly Tyr Gln Asp Val Asp Thr Ser Leu Gln Ser
 50 55 60
 Ala Val Ile Thr Lys Val Lys Gly Val Ala Phe Thr Asn Thr Ser Asp
 65 70 75 80
 Leu Gly Gln Arg Ile Trp Asp Val Ala Asp Tyr Val Ile Pro Ala Gln
 85 90 95
 Gly Glu Asn Val Phe Phe Val Val Thr Asn Leu Ile Val Thr Pro Asn
 100 105 110
 Gln Arg Gln Asn Val Cys Ala Glu Asn Glu Gly Ile Pro Asp Gly Ala
 115 120 125

Cys Ser Lys Asp Ser Asp Cys His Ala Gly Glu Ala Val Thr Ala Gly
 130 135 140

Asn Gly Val Lys Thr Gly Arg Cys Leu Arg Arg Glu Asn Leu Ala Arg
 145 150 155 160

Gly Thr Cys Glu Ile Phe Ala Trp Cys Pro Leu Glu Thr Ser Ser Arg
 165 170 175

Pro Glu Glu Pro Phe Leu Lys Glu Ala Glu Asp Phe Thr Ile Phe Ile
 180 185 190

Lys Asn His Ile Arg Phe Pro Lys Phe Asn Phe Ser Asn Asn Val Met
 195 200 205

Asp Val Lys Asp Arg Ser Phe Leu Lys Ser Cys His Phe Gly Pro Lys
 210 215 220

Asn His Tyr Cys Pro Ile Phe Arg Leu Gly Ser Val Ile Arg Trp Ala
 225 230 235 240

Gly Ser Asp Phe Gln Asp Ile Ala Leu Glu Gly Gly Val Ile Gly Ile
 245 250 255

Asn Ile Glu Trp Asn Cys Asp Leu Asp Lys Ala Ala Ser Glu Cys His
 260 265 270

Pro His Tyr Ser Phe Ser Arg Leu Asp Asn Lys Leu Ser Lys Ser Val
 275 280 285

Ser Ser Gly Tyr Asn Phe Arg Phe Ala Arg Tyr Tyr Arg Asp Ala Ala
 290 295 300

Gly Val Glu Phe Arg Thr Leu Met Lys Ala Tyr Gly Ile Arg Phe Asp
 305 310 315 320

Val Met Val Asn Gly Lys Gly Ala Phe Phe Cys Asp Leu Val Leu Ile
 325 330 335

Tyr Leu Ile Lys Lys Arg Glu Phe Tyr Arg Asp Lys Lys Tyr Glu Glu
 340 345 350

Val Arg Gly Leu Glu Asp Ser Ser Gln Glu Ala Glu Asp Glu Ala Ser
 355 360 365

Gly Leu Gly Leu Ser Glu Gln Leu Thr Ser Gly Pro Gly Leu Leu Gly
 370 375 380

Met Pro Glu Gln Gln Glu Leu Gln Glu Pro Pro Glu Ala Lys Arg Gly
 385 390 395 400

Ser Ser Ser Gln Lys Gly Asn Gly Ser Val Cys Pro Gln Leu Leu Glu
 405 410 415

Pro His Arg Ser Thr
 420

<210> 11
 <211> 431
 <212> PRT
 <213> Homo sapiens

<400> 11

Met Gly Ser Pro Gly Ala Thr Thr Gly Trp Gly Leu Leu Asp Tyr Lys
 1 5 10 15

Thr Glu Lys Tyr Val Met Thr Arg Asn Trp Arg Val Gly Ala Leu Gln
 20 25 30

Arg Leu Leu Gln Phe Gly Ile Val Val Tyr Val Val Gly Trp Ala Leu
 35 40 45

Leu Ala Lys Lys Gly Tyr Gln Glu Arg Asp Leu Glu Pro Gln Phe Ser
 50 55 60

Ile Ile Thr Lys Leu Lys Gly Val Ser Val Thr Gln Ile Lys Glu Leu
 65 70 75 80

Gly Asn Arg Leu Trp Asp Val Ala Asp Phe Val Lys Pro Pro Gln Gly
 85 90 95

Glu Asn Val Phe Phe Leu Val Thr Asn Phe Leu Val Thr Pro Ala Gln
 100 105 110

Val Gln Gly Arg Cys Pro Glu His Pro Ser Val Pro Leu Ala Asn Cys
 115 120 125

Trp Val Asp Glu Asp Cys Pro Glu Gly Glu Gly Gly Thr His Ser His
 130 135 140

Gly Val Lys Thr Gly Gln Cys Val Val Phe Asn Gly Thr His Arg Thr
 145 150 155 160

Cys Glu Ile Trp Ser Trp Cys Pro Val Glu Ser Gly Val Val Pro Ser
 165 170 175

Arg Pro Leu Leu Ala Gln Ala Gln Asn Phe Thr Leu Phe Ile Lys Asn
 180 185 190

Thr Val Thr Phe Ser Lys Phe Asn Phe Ser Lys Ser Asn Ala Leu Glu
 195 200 205

Thr Trp Asp Pro Thr Tyr Phe Lys His Cys Arg Tyr Glu Pro Gln Phe
 210 215 220

Ser Pro Tyr Cys Pro Val Phe Arg Ile Gly Asp Leu Val Ala Lys Ala
 225 230 235 240

Gly Gly Thr Phe Glu Asp Leu Ala Leu Leu Gly Gly Ser Val Gly Ile
 245 250 255

Arg Val His Trp Asp Cys Asp Leu Asp Thr Gly Asp Ser Gly Cys Trp
 260 265 270

Pro His Tyr Ser Phe Gln Leu Gln Glu Lys Ser Tyr Asn Phe Arg Thr
 275 280 285

Ala Thr His Trp Trp Glu Gln Pro Gly Val Glu Ala Arg Thr Leu Leu
 290 295 300

Lys Leu Tyr Gly Ile Arg Phe Asp Ile Leu Val Thr Gly Gln Ala Gly
 305 310 315 320

Lys Phe Gly Leu Ile Pro Thr Ala Val Thr Leu Gly Thr Gly Ala Ala
 325 330 335

Trp Leu Gly Val Val Thr Phe Phe Cys Asp Leu Leu Leu Leu Tyr Val
 340 345 350

Asp Arg Glu Ala His Phe Tyr Trp Arg Thr Lys Tyr Glu Glu Ala Lys
 355 360 365

Ala Pro Lys Ala Thr Ala Asn Ser Val Trp Arg Glu Leu Ala Leu Ala
 370 375 380

Ser Gln Ala Arg Leu Ala Glu Cys Leu Arg Arg Ser Ser Ala Pro Ala
 385 390 395 400

Pro Thr Ala Thr Ala Ala Gly Ser Gln Thr Gln Thr Pro Gly Trp Pro
 405 410 415

Cys Pro Ser Ser Asp Thr His Leu Pro Thr His Ser Gly Ser Leu
 420 425 430

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<220>
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<400> 12

Phe Asp Tyr Lys Thr Pro Lys Tyr Val Val Val Arg Asn Trp Lys Val
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Gly Leu Met Tyr Arg Met Val Gln Leu Leu Ile Leu Val Tyr Phe Val
 20 25 30

Gly Trp Val Ala Ser Gly Ala Gly Thr Ala Leu Ser His Arg Tyr Val
 35 40 45

Phe Leu Trp Glu Lys Gly Tyr Gln Asp Arg Asp Thr Ser Pro Gln Ser
 50 55 60

Ser Val Ile Thr Lys Val Lys Gly Val Ala Met Thr Asn Val Thr Gln
 65 70 75 80

Thr Ser Met Leu Gly Asn Arg Val Trp Asp Val Ala Asp Tyr Val Ile
 85 90 95

Pro Pro Gln Gly Glu Asn Val Phe Phe Val Met Thr Asn Met Ile Val
 100 105 110

Thr Pro Asn Gln Thr Gln Gly Tyr Cys Pro Glu His Pro Glu Val Pro
 115 120 125

Asp Gly Asn Cys Trp Ser Asp Ser Asp Cys His Ala Gly Glu Ala Gly
 130 135 140

Met His Gly His Gly Ile Lys Thr Gly Arg Cys Val Arg Phe Asn His
 145 150 155 160

Ser His Arg Arg Thr Cys Glu Ile Trp Ala Trp Cys Pro Val Glu Asp
 165 170 175

Asp Asp His Val Pro Met Pro Pro Met Leu Lys Glu Ala Glu Asn Phe
 180 185 190

Thr Ile Phe Ile Lys Asn Ser Ile Trp Phe Pro Lys Phe Asn Phe Ser
 195 200 205

Lys Arg Asn Ile Leu Glu Asn Trp Asn Asp Thr Tyr Met Lys His Cys
 210 215 220

His Phe His Pro Lys Asn His Pro Tyr Cys Pro Ile Phe Arg Leu Gly
 225 230 235 240

Asp Ile Val Glu Trp Ala Gly Gln Asp Phe Gln Asp Leu Ala His Lys
 245 250 255

Gly Gly Val Ile Gly Ile Gln Ile Asn Trp Asp Cys Asp Leu Asp Trp
 260 265 270

Ala Trp Ser His Cys Trp Pro His Tyr Ser Phe His Arg Leu Asp Asn
 275 280 285

Arg Lys His Glu His Asn Val Ser Pro Gly Tyr Asn Phe Arg Phe Ala
 290 295 300

Lys Tyr Tyr Trp Asp Asn Asn Gly Val Glu Tyr Arg Thr Leu Met Lys
 305 310 315 320

Ala Tyr Gly Ile Arg Phe Asp Val Ile Val His Gly Lys Ala Gly Lys
 325 330 335

Phe Asp Ile Ile Pro Thr Met Ile Asn Ile Gly Ser Gly Leu Ala Trp
340 345 350

Met Gly Val Gly Thr Phe Phe Cys Asp Trp Ile Leu Leu Tyr Cys Met
355 360 365

Lys Lys Arg His Tyr Tyr Trp His Lys Lys Phe Glu Tyr Val Glu Asp
370 375 380

Met Lys Gln Gly Ala Asn Ser Glu Trp Glu Ala
385 390 395

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<211> 22
<212> DNA
<213> Homo sapiens

<400> 13
tggccacaaa ttctttgaca ct 22

<210> 14
<211> 23
<212> DNA
<213> Homo sapiens

<400> 14
aatcagagcc acccatattc aag 23

<210> 15
<211> 32
<212> DNA
<213> Homo sapiens

<400> 15
aagtcccca agacctaagg gttttatctc ct 32

<210> 16
<211> 24
<212> DNA
<213> Homo sapiens

<400> 16
tgtgctcatc aagaacaata tcga 24

<210> 17
<211> 25
<212> DNA
<213> Homo sapiens

<400> 17
cagagtccgt ttctcaacat tgttt 25

<210> 18
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<400> 18
ccacaactac accacatacg ccaagtacta caagg 35

<210> 19
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<212> PRT
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<400> 19
Ile Lys Trp Phe Phe His Val Ile Ile Phe Ser Tyr Val Cys Phe Ala
1 5 10 15

Leu Val

<210> 20
<211> 18
<212> PRT
<213> Homo sapiens

<400> 20
Val Val Tyr Ile Gly Ser Thr Leu Ser Tyr Phe Gly Leu Ala Thr Val
1 5 10 15

Phe Ile

<210> 21
<211> 198
<212> PRT
<213> Homo sapiens

<400> 21
Ser Asp Lys Leu Tyr Gln Arg Lys Glu Pro Val Ile Ser Ser Val His
1 5 10 15

Thr Lys Val Lys Gly Ile Ala Glu Val Lys Glu Glu Ile Val Glu Asn
20 25 30

Gly Val Lys Lys Leu Val His Ser Val Phe Asp Thr Ala Asp Tyr Thr
 35 40 45

Phe Pro Leu Gln Gly Asn Ser Phe Phe Val Met Thr Asn Phe Leu Lys
 50 55 60

Thr Glu Gly Gln Glu Gln Arg Leu Cys Pro Glu Tyr Pro Thr Arg Arg
 65 70 75 80

Thr Leu Cys Ser Ser Asp Arg Gly Cys Lys Lys Gly Trp Met Asp Pro
 85 90 95

Gln Ser Lys Gly Ile Gln Thr Gly Arg Cys Val Val Tyr Glu Gly Asn
 100 105 110

Gln Lys Thr Cys Glu Val Ser Ala Trp Cys Pro Ile Glu Ala Val Glu
 115 120 125

Glu Ala Pro Arg Pro Ala Leu Leu Asn Ser Ala Glu Asn Phe Thr Val
 130 135 140

Leu Ile Lys Asn Asn Ile Asp Phe Pro Gly His Asn Tyr Thr Thr Tyr
 145 150 155 160

Ala Lys Tyr Tyr Lys Glu Asn Asn Val Glu Lys Arg Thr Leu Ile Lys
 165 170 175

Val Phe Gly Ile Arg Phe Asp Ile Leu Val Phe Gly Thr Gly Gly Lys
 180 185 190

Phe Asp Ile Ile Gln Leu
 195

<210> 22
 <211> 28
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 <213> Homo sapiens

<400> 22

Met Pro Ala Cys Cys Ser Cys Ser Asp Val Phe Gln Tyr Glu Thr Asn
 1 5 10 15

Lys Val Thr Arg Ile Gln Ser Met Asn Tyr Gly Thr
 20 25

<210> 23
 <211> 244
 <212> PRT
 <213> Homo sapiens

<400> 23

Asp Phe Leu Ile Asp Thr Tyr Ser Ser Asn Cys Cys Arg Ser His Ile
 1 5 10 15

Tyr Pro Trp Cys Lys Cys Cys Gln Pro Cys Val Val Asn Glu Tyr Tyr
 20 25 30

Tyr Arg Lys Lys Cys Glu Ser Ile Val Glu Pro Lys Pro Thr Leu Lys
 35 40 45

Tyr Val Ser Phe Val Asp Glu Ser His Ile Arg Met Val Asn Gln Gln
 50 55 60

Leu Leu Gly Arg Ser Leu Gln Asp Val Lys Gly Gln Glu Val Pro Arg
 65 70 75 80

Pro Ala Met Asp Phe Thr Asp Leu Ser Arg Leu Pro Leu Ala Leu His
 85 90 95

Asp Thr Pro Pro Ile Pro Gly Gln Pro Glu Glu Ile Arg Leu Leu Arg
 100 105 110

Lys Glu Ala Thr Pro Arg Ser Arg Asp Ser Pro Val Trp Cys Gln Cys
 115 120 125

Gly Ser Cys Leu Pro Ser Gln Leu Pro Glu Ser His Arg Cys Leu Glu
 130 135 140

Glu Leu Cys Cys Arg Lys Lys Pro Gly Ala Cys Ile Thr Thr Ser Glu
 145 150 155 160

Leu Phe Arg Lys Leu Val Leu Ser Arg His Val Leu Gln Phe Leu Leu
 165 170 175

Leu Tyr Gln Glu Pro Leu Leu Ala Leu Asp Val Asp Ser Thr Asn Ser
 180 185 190

Arg Leu Arg His Cys Ala Tyr Arg Cys Tyr Ala Thr Arg Arg Phe Gly
 195 200 205

Ser Gln Asp Met Ala Asp Phe Ala Ile Leu Pro Ser Cys Cys Arg Trp
 210 215 220

Arg Ile Arg Lys Glu Phe Pro Lys Ser Glu Gly Gln Tyr Ser Gly Phe
 225 230 235 240

Lys Ser Pro Tyr

<210> 24
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 <212> PRT
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<400> 24

Val Phe Gln Tyr Glu Thr Asn Lys Val Thr Arg Ile Gln
 1 5 10

<210> 25
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 <213> Homo sapiens

<400> 25

Ser Met Asn Tyr Gly Thr Ile Lys Trp Phe Phe His Val
 1 5 10

<210> 26
 <211> 13
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<400> 26

Cys Phe Ala Leu Val Ser Asp Lys Leu Tyr Gln Arg Lys
 1 5 10

<210> 27
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<400> 27

Cys Pro Glu Tyr Pro Thr Arg Arg Thr Leu Cys Ser Ser
1 5 10

<210> 28
<211> 13
<212> PRT
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<400> 28

Arg Thr Leu Cys Ser Ser Asp Arg Gly Cys Lys Lys Gly
1 5 10

<210> 29
<211> 13
<212> PRT
<213> Homo sapiens

<400> 29

Ser Lys Gly Ile Gln Thr Gly Arg Cys Val Val Tyr Glu
1 5 10

<210> 30
<211> 13
<212> PRT
<213> Homo sapiens

<400> 30

Val Glu Pro Lys Pro Thr Leu Lys Tyr Val Ser Phe Val
1 5 10

<210> 31
<211> 13
<212> PRT
<213> Homo sapiens

<400> 31

Leu Arg Lys Glu Ala Thr Pro Arg Ser Arg Asp Ser Pro
1 5 10

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<212> PRT
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<400> 32

Ser Gln Leu Pro Glu Ser His Arg Cys Leu Glu Glu Leu

1 5 10

<210> 33
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<212> PRT
<213> Homo sapiens

<400> 33

Tyr Arg Cys Tyr Ala Thr Arg Arg Phe Gly Ser Gln Asp
1 5 10

<210> 34
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<212> PRT
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<400> 34

Met Pro Ala Cys Cys Ser Cys Ser Asp Val Phe Gln Tyr Glu
1 5 10

<210> 35
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<212> PRT
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<400> 35

Lys Lys Leu Val His Ser Val Phe Asp Thr Ala Asp Tyr Thr
1 5 10

<210> 36
<211> 14
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<400> 36

Arg Lys Lys Cys Glu Ser Ile Val Glu Pro Lys Pro Thr Leu
1 5 10

<210> 37
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<212> PRT
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<400> 37

Thr Leu Lys Tyr Val Ser Phe Val Asp Glu Ser His Ile Arg
1 5 10

<210> 38
<211> 14
<212> PRT
<213> Homo sapiens

<400> 38

Gln Leu Leu Gly Arg Ser Leu Gln Asp Val Lys Gly Gln Glu
1 5 10

<210> 39
<211> 14
<212> PRT
<213> Homo sapiens

<400> 39

Pro Gly Ala Cys Ile Thr Thr Ser Glu Leu Phe Arg Lys Leu
1 5 10

<210> 40
<211> 14
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<213> Homo sapiens

<400> 40

Leu Asn Ser Ala Glu Asn Phe Thr Val Leu Ile Lys Asn Asn
1 5 10

<210> 41
<211> 14
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<213> Homo sapiens

<400> 41

Asp Phe Pro Gly His Asn Tyr Thr Thr Tyr Ala Lys Tyr Tyr
1 5 10

<210> 42
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<212> PRT
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<400> 42

Cys Ser Ser Asp Arg Gly Cys Lys Lys Gly Trp Met Asp Pro Gln Ser
1 5 10 15

<210> 43

<211> 16
<212> PRT
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<400> 43

Asp Pro Gln Ser Lys Gly Ile Gln Thr Gly Arg Cys Val Val Tyr Glu
1 5 10 15

<210> 44
<211> 16
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<400> 44

Cys Val Val Tyr Glu Gly Asn Gln Lys Thr Cys Glu Val Ser Ala Trp
1 5 10 15

<210> 45
<211> 16
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<400> 45

Leu Val Val Tyr Ile Gly Ser Thr Leu Ser Tyr Phe Gly Leu Ala Thr
1 5 10 15

<210> 46
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<212> PRT
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<400> 46

Cys Arg Lys Lys Pro Gly Ala Cys Ile Thr Thr Ser Glu Leu Phe Arg
1 5 10 15

<210> 47
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<400> 47

Phe Pro Lys Ser Glu Gly Gln Tyr Ser Gly Phe Lys Ser Pro Tyr
1 5 10 15

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 <212> DNA
 <213> Homo sapiens

 <400> 49
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 <210> 50
 <211> 20
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 <213> Homo sapiens

 <400> 50
 cagaaggcca agagcagcgg 20

 <210> 51
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 <212> DNA
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 <400> 51
 gtgccccatc gaggcagtg 19

 <210> 52
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 <400> 52
 cgtatctgaa gttgagccag gg 22

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 <400> 53
 cagaggagat acagctgctt ag 22

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 <400> 54

gagcaggagg aactgcagga c 21

<210> 55
<211> 38
<212> DNA
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<400> 55
gcagcagcgg ccgcaccatt aagtggttct tccacgtg 38

<210> 56
<211> 37
<212> DNA
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<400> 56
gcagcagtcg acgtaaggac tcttgaagcc actgtac 37

<210> 57
<211> 39
<212> DNA
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<400> 57
gcagcagcgg ccgcatgccg gcctgctgca gctgcagtg 39

<210> 58
<211> 37
<212> DNA
<213> Homo sapiens

<400> 58
gcagcagtcg acctcaggga gttgagatgg gaggcag 37

<210> 59
<211> 23
<212> DNA
<213> Homo sapiens

<400> 59
caggtgcagc tgggtgcagtc tgg 23

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